

REMARKS

A. 35 U.S.C. § 103

1. Hagl et al., Rehm et al. and Lennartsson

a. Claims 2-10, 16-24, 26 and 28

Claims 2-10, 16-24, 16 and 28 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Rehm et al. et al., and Lennartsson.¹ Applicants traverse the rejection. In particular, claim 22 recites a method for serial data transmission that includes “always transmitting further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” The Office Action has conceded that Hagl et al. does not disclose “always transmitting further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” The Office Action relies on Rehm et al. for overcoming the deficiencies of Hagl et al. In particular, the Office Action asserts that Rehm et al.’s data accommodated in the intervals FZI and corresponding to processes R10-R13 is non-time critical data that immediately follows the time critical data of processes RZ1 and RZ2. As pointed out in Applicants’ Amendments of October 28, 2005 and May 23, 2006, Rehm et al. only describes the sectoring of processing time so that data associated with time critical processes is processed during periods RZ1, RZ2 and data associated with non-time critical processes is processed during alternating periods FZI.

¹ The Office Action incorrectly refers to U.S. Patent No. 5,371,859 as Kent, the first name of the inventor, instead of Lennartsson, the last name of the inventor.

As pointed out in previous Amendments, Rehm et al. discloses the sectoring of processing time and fails to disclose always transmitting “further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” Lennartsson does not cure the deficiencies of Hagl et al. and Rehm et al. in that Lennartsson does not suggest altering Hagl et al. so that Hagl et al. always transmits non-time-critical data immediately after transmission of position data. Without such suggestion, the rejection is improper and should be withdrawn.

The rejection of claim 22 is improper for the additional reason that Hagl et al., Rehm et al. and Lennartsson fail to disclose transmitting several different position request commands, wherein the position request commands are assigned different processing priorities. The Office Action has conceded that Hagl et al. and Rehm et al. fail to disclose transmitting the recited position request commands. Lennartsson does not cure the deficiencies of Hagl et al. and Rehm et al. Lennartsson only generally discloses that a master station of a communication bus can assign access priority to various message data structures. Nowhere does Lennartsson disclose that position request commands are assigned different processing priorities as recited in claim 22.

The rejection should be withdrawn for that additional reason that it is unclear how Hagl et al. is to be altered in view of Rehm et al. and/or Lennartsson in order to always transmit data that is not time-critical immediately following the transmission of up-to-date position data. Without clarity as to how the two references are to be combined, the rejection is improperly using an “obvious to try” standard which is improper. *Gillette Co. v. S.C. Johnson & Son Inc.*, 919 F.2d 720, 725, 16 USPQ2d 1923, 1928 (Fed. Cir. 1990).

The rejections of claims 24 and 26 are improper for the additional reason that neither Hagl et al., Rehm et al. nor Lennartsson suggests altering Hagl et al. to use a first position request command for position control that causes transmission of up-to-date position data to be given highest priority and a second position request command for digitizing a workpiece contour that causes transmission of up-to-date position data to be given lower priority. The Office Action has conceded that Hagl et al. does not disclose such position request commands. The Office Action has relied on Lennartsson as solving the deficiencies of Hagl et al. While Lennartsson does disclose transmitting messages with a unique priority it does not disclose nor suggest the particular position request commands recited in claim 24. Since there is no motivation in Lennartsson to alter Hagl et al. to use the claimed position request commands, the rejection should be withdrawn.

Despite the impropriety of the rejection, claims 3, 6, 9, 10 and 22 have been canceled rendering their rejections moot and claim 12 has been amended so as to be in independent form. Claims 2, 4, 5, 7, 16-18, 23 and 24 have been amended so as to depend from claim 12 so that claims 8, 19-21 and 28 depend indirectly on claim 12. Claim 12 recites having a position request signal arrive during transmission of non-time critical data and interrupting the transmission of the non-time-critical data. Claim 12 further recites immediately transmitting a position data request command in the place of the non-time-critical data, wherein the up-to-date position data are immediately transmitted from the position measuring system to the processing unit. Since not one of Hagl et al., Rehm et al. and Lennartsson disclose or suggest the recited interrupting and transmitting, the rejection of claim 12 should be allowed for these reasons as well as the reasons given above with respect to claim 22, the entire contents of which are incorporated in claim 12.

As mentioned previously, claims 2, 4, 5, 7, 16-18, 23 and 24 have been amended so as to

depend from claim 12. Since the amendments are being made solely to provide additional coverage for the method of claim 12, the amendments are not being made for reasons related to patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), *overruled in part*, 535 U.S. 722 (2002) (hereinafter *Festo I*).

In addition, claim 12 has been amended so as to be in independent form. To the extent that the amendments incorporate subject matter that was inherently present in the previous version of claim 12, the amendments are not being presented for reasons related to patentability. *See, Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd*, 535 U.S. 722 (2002).

b. Claims 36 and 38-45

Claims 36 and 38-45 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Rehm et al. and Lennartsson. Applicants traverse the rejection. Claim 36 recites that related non-time critical data is transmitted “over several blocks, between which up-to date position data is transmitted.” The Office Action has not identified one reference that is being relied on for suggesting the recited transmission of non-time critical data. If the Office Action is relying on Rehm et al. for overcoming the deficiencies of Hagl et al., then the rejection is improper since Rehm et al. is silent whether up-to date position data is transmitted between several blocks of non-time critical data. As mentioned previously in Section A.1.a, FIG. 2 of Rehm et al. discloses when certain non-time-critical processes and time-critical processes are performed (Col. 3, l. 45 – Col. 4, l. 18). There is no mention in Rehm et al. when up-to date position data and various non-time critical data are transmitted in the manner recited in claim 36.

The rejection should be withdrawn for the additional reason that an improper “obvious to try” standard is being applied since it is unclear how Hagl et al. is to be altered in view of Rehm et al. in order to transmit related non-time critical data over several blocks between which up-to date position data is transmitted.

c. Claims 47, 48 and 50-55

Claims 47, 48 and 50-55 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al. and Rehm et al. Claim 47 recites a system for serial data transmission wherein related non-time critical data is transmitted over several blocks, between which the up-to date position data is transmitted. Since the above language is similar to that of claim 36, the rejection should be withdrawn for reasons similar to those given above in Section A.1.c. The rejection is improper for the additional reason that the Office Action has failed to address the limitation at all by not identifying one reference that discloses the recited transmission.

2. Hagl et al., Rehm et al., Lennartsson and Kurten

Claims 11-15, 25 and 27 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Rehm et al., Lennartsson and Kurten. Claims 11 and 15 have been canceled rendering their rejections moot. Claim 12 has been amended so as to be in independent form. Claims 14 and 25 have been amended so as to depend from claim 12 and claims 13 and 27 depend indirectly from claim 12. As mentioned above in Section A.1.a, Rehm et al. and Lennartsson both do not suggest altering Hagl et al. so as to always transmit “further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” Kurten does not cure the deficiencies of Hagl et al., Rehm et al. and Lennartsson in that Kurten does not suggest

altering Hagl et al. so that Hagl et al. always transmits non-time-critical data immediately after transmission of up-to-date position data. Without such suggestion, the rejection is improper and should be withdrawn. Kurten also does not cure the deficiencies of Hagl et al. Rehm et al., and Lennartsson mentioned previously in Section A.1.a with respect to claim 22 which has been incorporated in claim 12.

Claims 11 and 12 are patentable for the additional reason that not any of Kurten, Rehm et al. or Lennartsson suggest altering Hagl et al. to immediately transmit after interrupting transmission of non-time-critical data a position data request command to the position measuring system in the place of the non-time-critical data, “whereupon said up-to-date position data are immediately transmitted from said position measuring system to said processing unit” as explained in Applicants’ Amendments filed on October 28, 2005 and May 23, 2006, the entire contents of each of which are incorporated herein by reference. Since there is no suggestion in any of Hagl et al., Rehm et al., Lennartsson or Kurten to provide the claimed transmitting to Hagl et al., the rejection is improper and should be withdrawn.

Claim 14 is patentable for the additional reason that not any of Kurten, Lennartsson or Rehm et al. suggest altering Hagl et al. to transmit after interrupting transmission of non-time-critical data up-to-date position data in the place of the non-time-critical data as explained in Applicants’ Amendments filed on October 28, 2005 and May 26, 2006, the entire contents of each of which are incorporated herein by reference. Since there is no suggestion in any of Hagl et al., Rehm et al., Lennartsson or Kurten to provide the claimed transmitting to Hagl et al., the rejection is improper and should be withdrawn.


Claims 14 and 25 have been amended so as to depend from claim 12. Since the

amendments are being made solely to provide additional coverage for the method of claim 12, the amendments are not being made for reasons related to patentability as defined in *Festo I*.

CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 2, 4, 5, 7, 8, 12-14, 16-21, 23-28, 36, 38-45, 47, 48 and 50-55 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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